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FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
2026-4205USSERIAL NO.
08/533,895

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GROUP 1600

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

APPLICANT(S)
Topalian, et al.FILING DATE
September 26, 1995GROUP ART UNIT
1645

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SURCLASS	FILING DATE IF APPROPRIATE
JW	5 2 6 2 1 7 7	11/16/93	Brown et al.			
JW	5 3 4 2 7 7 4	08/31/94	Boon et al.			

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
JW	9 4 0 5 3 0 4	3/94	PCT				
	0 6 6 8 3 5 0	08/23/95	EPD				
	3 3 4 1 3 6 7	05/24/84	GERMANY (DE)				
	2 1 3 3 5 4 3	08/24/84	GB				
	9 5 2 2 5 6 1	08/24/95	PCT				
	9 4 2 3 0 6 7	10/13/94	PCT				
	9 3 1 4 1 8 9	07/22/93	PCT				
	9 4 1 4 4 5 9	07/94					

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Papers, Etc.)

JW	Chicz, R.M., et al., "Specificity And Promiscuity Among Naturally Processed Peptides Bound To HLA-Dr Alleles" <i>J. Exp. Med.</i> , 178, 27-47; (1993)
	Sette, A. et al., "Capacity Of Intact Proteins To Bind To MHC Class II Molecules" <i>J. Immunol.</i> , 143, 1265-1267; (1989)
	Brown, J.H., et al., "Three-Dimensional Structure Of The Human Class II Histocompatibility Antigen HLA-DRI" <i>Nature</i> , 364, 33-39 (1993)
	Kwon, et al., "Isolation And Sequence Of A cDNA Clone For Human Tyrosinase That Maps At The Mouse c-Albino Locus" <i>PNAS</i> , 84:7473-7477, (1987)
	Shibihara, S. et al., "Molecular Basis For The Heterogeneity Of Human Tyrosinase" <i>J. Exp. Med.</i> , 156:403-414, (1988)
	Sette, A. et al., "HLA-DR4w4-Binding Motifs Illustrate The Bio chemical Basis Of Degeneracy And Specificity In Peptide-Dr Interactions" <i>J. Immunol.</i> , 151:3163-3170, (1993)
	Rammensee, H.G. et al., "MHC Ligands And Peptide Motifs: First Listing" <i>Immunogenetics</i> , 41:178-228 (1995)
	Kozono, H. et al., "Production Of Soluble MHC II Class II Proteins With Covalently Bound Single Peptides" <i>Nature</i> , 369:151-154 (1994)
	Sinigaglia, F. et al., "Motifs And Super motifs for MHC Class II Binding Peptides" <i>J. Exp. Med.</i> , 181:449-451 (1995)
	Kawakami, et al., "Cloning Of The Gene Coding For A Shared Human Melanoma Antigen Recognized By Autologous T-Cells Infiltrating Into Tumor" <i>Proc. Natl Acad. Sci.</i> , 91:3575-3579 (1994)

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FORM PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. REFERENCE NO. 2026-4205US		SERIAL NO. 08/533,895		FAX RECEIVED NOV 03 1998 GROUP 1600	
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				APPLICANT(S) Topalian, et al.					
				FILING DATE September 26, 1995				GROUP ART UNIT 1645	
On				Wang, R-F et al., "Identification Of A Gene Encoding A Melanoma Tumor Antigen Recognized By HLA-A31-Restricted Tumor Infiltrating Lymphocytes" <i>J. Exp. Med.</i> , 181:799-804, (1995)					
				Sidney, J. et al., "DR B1* 0301 Molecules Recognize A Structural Motif Distinct From The One Recognized By Most DR B, Alleles" <i>J. Immunol.</i> , 149, 2634-2640, (1992)					
				Malcherek, G. et al., "Super Motifs Enable Natural Invariant Chain-derived Peptides To Interact With Many Major Histocompatibility Complex-class II Molecules" <i>J. Exp. Med.</i> , 181, 527-536 (1995)					
				Topalian, S., "MHC Class II Restricted Tumor Antigens And The Role Of CD4+ T Cells In Cancer Antigens" <i>Current Opinion in Immunology</i> , 6:741-745, (1994)					
				Topalian, S., et al. (1994) "Melanoma Specific CD4+ T-Lymphocytes Recognize Human Melanoma Antigens Processed And Presented By Epstein Barr Virus Transformed Cells" <i>Int. J. Cancer</i> 58:69-79					
				Nanda, et al., "Induction of Anti Self-Immunity to Bone Cancer" <i>Cell</i> , 82:13-17, (1995)					
				Markus, N. et al., "Analysis of Cytokine Secretion by Melanoma-Specific CD4+ Lymphocytes" <i>Journal of Interferon and Cytokine Research</i> , 15:739-746, (1995)					
				GenBank, Accession No. J03581 - January 14, 1995					
				GenBank, Accession No. U01873 - September 27, 1993					
				GenBank, Accession No. Y00819 - July 28, 1995					
				GenBank, Accession No. M27160 - December 2, 1996					
				Coulie, P.G. et al. (1993) "Genes coding for tumor antigens recognized by human cytolytic T-lymphocytes." <i>J. Immunotherap.</i> , 14:104-109.					
				Coulie P.G. et al. "A new gene coding for a differentiation antigen recognized by autologous cytolytic T lymphocytes on HLA-A2 melanomas." <i>J. Exp. Med.</i> 1994; 180:35-42.					
				Marsh, C.A. et al.: "Cloning and expression of the gene for the melanoma associated ME20 antigen." <i>DNA and Cell Biology</i> 1994; 13:87-95.					
				Cox, A.L., et al. "Identification of a peptide recognized by five melanoma-specific human cytotoxic T cell lines." <i>Science</i> 1994; 264:716-719.					
				Brichard, V., et al.: "The tyrosinase gene codes for an antigen recognized by autologous cytolytic T lymphocytes on HLA-A2 melanomas". <i>J. Exp. Med.</i> 1993; 178:489-495.					
				Gaugler, B., et al. "Human gene MAGE-3 codes for an antigen recognized on a melanoma by autologous cytolytic T lymphocytes". <i>J. Exp. Med.</i> 1994; 179:921-930.					
				Traversari, C., et al.: "A nonapeptide encoded by human gene MAGE-1 is recognized on HLA-A1 by cytolytic T lymphocytes directed against tumor antigen MZ2-E". <i>J. Exp. Med.</i> 1992; 176:1453-1457.					
				Cellis, E., et al.: "Induction of anti-tumor cytotoxic T lymphocytes in normal humans using primary cultures and synthetic peptides epitopes". <i>Proc. Natl. Acad. Sci. USA</i> 1994; 91:2105-2109.					
				Boon, T.: "Toward a genetic analysis of tumor rejection antigens". <i>Adv. Cancer Res.</i> 1992; 58:177-210.					
				Kawakami, Y., et al.: "T-cell recognition of human melanoma antigens." <i>J. Immunother.</i> 1993; 14:88-93.					
				Bakker, A.B.H., et al.: "Melanocyte lineage-specific antigen gp100 is recognized by melanocyte-derived tumor infiltrating lymphocytes." <i>J. Exp. Med.</i> 1994; 179:1005-1009.					
✓				Wölfel, T., et al.: "Two tyrosinase nonapeptides recognized on HLA-A2 melanomas by autologous cytolytic T. lymphocytes." <i>Eur. J. Immunol.</i> 1994; 24:759-764.					

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- Adema, G.J., et al.: "Melanocyte lineage-specific antigens recognized by monoclonal antibodies NK1-beta2b, HMB-50, and HMB-45 are encoded by a single cDNA." *Am J. Pathol.* 1993; 143:1579-1585.
- Kwon, B.S., et al.: "A melanocyte-specific gene, Pmel 17, maps near the silver coat color locus on mouse chromosome 10 and is in a syntenic region on human chromosome 12." *Proc. Natl. Acad. Sci. USA* 1991; 88:9228-9232.
- Rosenberg, S.A., et al.: "Use of tumor infiltrating lymphocytes and interleukin-2 in the immunotherapy of patients with metastatic melanoma. Preliminary report." *N. Engl. J. Med.* 1988; 319:1676-1680.
- Kawakami, Y., et al.: "Shared human melanoma antigens. Recognition by tumor infiltrating lymphocytes in H1A-A2.1 transfected melanomas." *J. Immunol* 1992; 148:638-643.
- Van der Bruggen, et al.: "A gene encoding an antigen recognized by cytolytic T. lymphocytes on a human melanoma." *Science* 1991; 254:1643-1647.
- Falk, K., et al.: "Allele-specific motifs revealed by sequencing of self-peptides eluted from MHC molecules." *Nature* 1991; 351:290-296.
- Kubo, R., et al.: "Definition of specific peptide motifs for four major HLA-A Alleles." *Journal of Immunology* 1994, 152:3913-3924.
- Parker, K., et al.: "Sequence motifs important for peptide binding to the human MHC class 1 molecule. H1A-A2." *J. Immunol.* 1992; 3580-3587.
- Ruppert, J., et al.: "Prominent role of secondary anchor residues in peptide binding to HLA-A2.1 molecules." *Cell* 1993; 74:929-937.
- Storkus, W., et al.: "Identification of human melanoma peptides recognized by class 1 restricted tumor infiltrating T lymphocytes." *Journal of Immunology* 1993; 151:3719-3727.
- Kawakami, Y., et al.: "Cloning of the gene coding for a shared human melanoma antigen recognized by autologous T cells infiltrating into tumor." *Proc. Natl. Acad. Sci. USA* 1994; 91:3515-3519.
- Adema, G.J. et al., "Molecular characterization of the melanocyte lineage-specific antigen gp100." *Journal of Biological Chemistry* 1994; 269:20126-20133.
- EMBL DATABASE ACCESSION NUMBER M32295; 26-11-90 Vogel A.: Human KD melanocyte specific secreted glycoprotein MRNA 3'end' - June 15, 1990
- Kawakami, Y., et al.: "Identification of a human melanoma antigen recognized by tumor-infiltrating lymphocytes associated with *in vivo* tumor rejection." *Proc. Natl. Acad. Sci. USA* 1994; 91:6458-6462.
- Kawakami, Y., et al., "Identification of the Immunodominant Peptides of the MART-1 Human Melanoma Antigen Recognized by the Majority of HLA-A2-restricted Tumor Infiltrating Lymphocytes" *J. Exp. Med.* 180:347-352, 1994
- Rivoltini, L., et al., "Induction of Tumor-Reactive CTL from Peripheral Blood and Tumor-Infiltrating Lymphocytes of Melanoma Patients by In Vitro Stimulation with an Immunodominant Peptide of the Human Melanoma Antigen MART-1" *Journal of Immunology*, 1995, 154:2257-2265
- Stingluff, C.L., Jr., et al., "Direct analysis of tumor-associated peptide antigens" *Current Opinion in Immunology* 1994, 6:733-740
- Cole, D.J., et al., "Characterization of the Functional Specificity of a Cloned T-Cell Receptor Heterodimer Recognizing the MART-1 Melanoma Antigen" *Cancer Res.* 55:748-752 Feb. 1995
- Cole, D.J., et al., "Identification of MART-1-specific T-Cell Receptors: T Cells Utilizing Distinct T-Cell Receptor Variable and Joining Regions Recognize the Same Tumor Epitope" *Cancer Res.* 54:5265-5268, 1994
- Castelli, C., et al., "Mass Spectrometric Identification of a Naturally Processed Melanoma Peptide Recognized by CD8+ Cytotoxic T Lymphocytes" *J. Exp. Med.* 181:363-368 1995

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				FILING DATE September 26, 1995		GROUP ART UNIT 1645	
JW				Sene, A., et al., "Peptide Binding To The Most Frequent HLA-A Class I Alleles Measured By Quantitative Molecular Binding Assays" <i>Molecular Immunology</i> 31:813-822, 1994			
				Wölfel, T., et al., "Analysis Of Antigens Recognized On Human Melanoma Cells By A2-Restricted Cytolytic T Lymphocytes (CTL)" <i>Int. J. Cancer</i> 55:237-244, 1993.			
				Wölfel, T., et al., "Isolation Of Naturally Processed Peptides Recognized By Cytolytic Lymphocytes (CTL) On Human Melanoma Cells In Association With HLA-A2.1" <i>Int. J. Cancer</i> 57:413-418, 1994.			
		(1)		Topalian, S.L., et al., "Human CD4 ⁺ T Cells Specifically Recognize a Shared Melanoma-Associated Antigen Encoded by the Tyrosinase Gene" <i>PNAS</i> 91:9461-9465, 1994.			
				Boël, P., et al., "BAGE: a New Gene Encoding an Antigen Recognized on Human Melanomas by Cytolytic T Lymphocytes" <i>Immunology</i> 2:167-175 1995			
				Slingluff, C.L., Jr., et al., "Recognition of Human Melanoma Cells by HLA-A2.1-Restricted Cytotoxic T Lymphocytes Is Mediated by at Least Six Shared Peptide Epitopes" <i>Journal of Immunology</i> 150:2955-2963 1993			
				GENBANK DATABASE ACCESSION NUMBER M77348 - Human PMEL 17 in RNA - November 14, 1993 January 8, 1995			
				GENBANK DATABASE ACCESSION NUMBER U06654 - Human Differentiation Antigen Melan-A Protein in RNA - July 30, 1994			
				GENBANK DATABASE ACCESSION NUMBER U06452 - Human Melanoma Antigen Recognized by T-Cells (MART-1) MRNA - June 25, 1994			
				GENBANK DATABASE ACCESSION NUMBER S73003 - GPI00 Melanocyte Lineage Specific Antigen / PMELL 7 - January 25, 1995			
				GENBANK DATABASE ACCESSION NUMBER U01874 - Human ME20 MRNA May 27, 1994			
				Bouchard, Brigitte, et al.; "Induction of pigmentation in mouse fibroblasts by expression of human tyrosinase." <i>J. Exp. Med.</i> 1989; 169:2029-2042.			
				Tripathi, Ram K., et al.; "Tyrosinase Gene Mutations in Type I (Tyrosinase-Deficient) Oculocutaneous Albinism Define Two Clusters of Missense Substitutions." <i>American Journal of Medical Genetics</i> 1992; 43:865-871.			
				Oetting, William S. and King, Richard A.; "Molecular Basis of Type I (Tyrosinase-Related) Oculocutaneous Albinism: Mutations and Polymorphisms of the Human Tyrosinase Gene." <i>Human Mutation</i> 1993; 2:1-6.			
				Spritz, Richard A.; "Molecular Genetics of Oculocutaneous Albinism." <i>Seminars in Dermatology</i> 1993; Vol. 12, No.3:167-172			
				Robbins, et al. (1994). "Recognition of tyrosinase by tumor-infiltrating lymphocytes from a patient responding to immunotherapy", <i>Cancer Research</i> ; 54:3124-3126			
V				Robbins, et al (1995), "Cloning of a new gene encoding an antigen recognized by melanoma-specific HLA-A24-restricted tumor-infiltrating lymphocytes" <i>J. IMMUNOL.</i> 1995; 154(11), 5944, 50			
EXAMINER				DATE CONSIDERED 1-18-99			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							